

Remarks

This document is a response to a final office action that was mailed on October 24, 2005. This document is also included within a filing for a Request for Continued Examination (RCE). This response includes amendments to pending claims 1, 8-11, 28, 36-38 and 42 and 60 and includes a newly added claim 61.

Claims 1 and 60 were amended to clarify details regarding the electronic terminal. We understand these details to be inherent to the interpretation of the term "electronic terminal" as it is recited within the prior un-amended claims 1 and 60 and as it is described within the specification of the subject patent application. These claims were also amended in part, to exclude the term "data communications" where it precedes the term "encryption key". Also, claims 8-11, 28, 36-38 and 42 have been amended to also exclude the term "data communications" in order to maintain proper antecedent basis and language consistency, where applicable. Claim 61 is newly added and further clarifies details of the electronic terminal. Support for the new claim 61 is found on pages 6-7 of the Applicants specification. No new matter has been added.

An interview took place on December 27, 2005 between Examiner Tran and R. Stephen Rosenholm, the Applicant's representative. During the interview, no agreement was reached regarding an allowance of claims or removal of the finality of the office action and the performance of a new search. The substance of the interview was the following.

The Applicant argued that the Johnson reference fails to teach a "portable keying device for installing...encryption key in at least one electronic terminal" as recited in part, within the Applicant's claim 1, before and after the current amendment.

Based upon Examiner Tran's explanation of the applicability of the Johnson reference, the Applicant stated that the Johnson's POS device 200 appears to constitute the "electronic terminal" claim element, as recited by the Applicant's claim 1. Examiner Tran concurred with this point. The Applicant explained that the Johnson's POS device acts as a relay that does not encrypt or decrypt relayed information and that consequently, the Johnson POS device has no need for an encryption key (installed or generated) and there is no reason to install an encryption key onto Johnson's POS device, and that in fact, no encryption key is installed into the Johnson POS device, as recited in part by the Applicant's claim 1.

The Applicant further argued that Johnson's tag does not function as a "portable keying device" because Johnson's tag does not function to install or communicate an encryption key. Johnson's random number transmitted to Johnson's tag is for the purpose of authentication of Johnson's tag and not for the purpose of installing an encryption key. Johnson describes the use an encryption key but does not describe the use of RF communication to install an encryption key. The main cryptographic key of Johnson's tag is set by a tag programmer and not installed into Johnson's tag via a "communications unit...operative to transmit the at least one data communications encryption key", as claimed by the Applicant. Without a previously set "main cryptographic key", Johnson's system could not operate as described.

The arguments made during the interview are described with respect to the scope and content of the Johnson reference in more detail below. The Examiner did not render a decision regarding the allowance of any claims or the withdrawal of the finality of the claim rejections during that interview. The Applicant received an Interview Summary on January 3, 2006 from Examiner Tran confirming that Examiner Tran decided to continue the finality of the rejection of the claims and recommended that more detail be added to the body of the claims to distinguish the invention from the Johnson reference. The above text summarizes the interview of December 27, 2005.

In response, the Applicant asserts that there is apparently some ambiguity within the language of the claims 1 and 60 that is creating differences between the Applicant's and the Examiner's interpretation of the claims. As explained, the Applicant has no reason to believe that the Johnson reference, or any other prior art of record, falls within the scope of the claims 1 or 60 before or after the current amendments of claims 1 and 60.

The Applicant is making the current amendments to claims 1 and 60 in an attempt to identify new claim language that can be interpreted by the Applicant and the Examiner in the same way and that continues to distinguish over then prior art of record. The amendments are not being made to circumvent any known teachings of the prior art of record. The Applicant herein respectfully traverses the Examiner's claim rejections.

In the non-final office action of April 15, 2005 and in the final office action of December 14, 2005, the Examiner states that claims 1, 8-12, 28-30 and 36-38 and 42 are

rejected under 35 U.S.C. §102(e) as being anticipated by Johnson, Jr. (U.S. 6,185, 307) and that claims 2-7, 31-35, 43-48 and 60 are rejected under 35 U.S.C. §103(a) as being unpatentable over Johnson (U.S. 6,185, 307) in further view of Nysen (U.S. 6,433,671) and that claims 13-16 and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Johnson (U.S. 6,185, 307) in further view of Tuttle (U.S. 6,078,791).

The Applicant responded to the above claim rejections in a response mailed on August 15, 2005. The Applicant further responds to these claim rejections with respect to the scope and content of the Johnson (U.S. 6,185, 307) reference, as discussed with Examiner Tran during the December 27, 2005 telephone interview.

Referring to independent claim 1, it recites in part, before and after its current amendment

"A portable keying device for... installing...encryption key in at least one electronic terminal...including:...a communications unit...being operative to transmit the at least one ...encryption key in a predetermined format to the electronic terminal" (underline added).

Note that the Applicants invention regards communicating an encryption key for the purpose of "installing...encryption key" into an "electronic terminal". The Applicant's electronic terminal receives and installs the communicated encryption key. Once an encryption key is installed into an electronic terminal, the electronic terminal can use the encryption key for encryption of information, including such as input data.

The Examiner indicates that the above recited subject matter is described by the Johnson ('307) reference and cites portions of Johnson including (Column 3, Lines 25-67) and (Column 4, Lines 1-6). The Examiner also states that the "portable keying device" has the same meaning as "tag" and that "data communications encryption key" has the same meaning as "session key".

The Examiner's interpretation of the Johnson ('307) reference suggests that the Johnson POS device (200) would most likely have the same meaning as (be analogous to) the Applicant's claimed "electronic terminal".

The Johnson reference states "The invention relates to...a host network authorization system" and provides "authorization of the tag" (underline added) (Abstract). With respect to Johnson's tag, host and POS device, Johnson states "Importantly, the tag 100 and host

network 300 are adapted to encrypt and decrypt certain communications there-between, while the POS device 200 primarily only relays the encrypted information sent between the tag 100 and host network 300. Preferably to enhance security, the POS device 200 is unable to decrypt such information" (underline added) (Column 5, Lines 61-67).

Johnson's system provides for "authorization of the tag". Johnson's POS device acts as a relay and does not encrypt or decrypt relayed information. Consequently, Johnson's POS device has no need for an encryption key (installed or generated) and there is no reason to install an encryption key onto Johnson's POS device, as recited by the Applicant's claim 1. Hence Johnson's POS device cannot function as the Applicant's "electronic terminal" as recited in claims 1 and 60, before or after the current amendment.

Johnson describes the operation of Johnson's tag 100 and Johnson's network 300 using a "main cryptographic key" that is used to generate an "encrypted random number" (Col. 3, Lines 34-37) that is used to generate a "session" key" from the "random number" (Col. 3, Lines 54-57).

The Examiner also states "The session key is a function of the random number that is transmitted between the tag and the host" and indicates that communicating the "session key" and/or the "random number" functions as "installing...an encryption key" as claimed by the Applicant.

The Applicant asserts that what the Examiner is indicating cannot be true for at least the following reasons. The session key is not an installed encryption key, it is a generated encryption key. The session key is generated from a combination of another encryption key (main cryptographic key), an encryption key generating algorithm and a random number. The session key cannot be generated without the presence of the main cryptographic key. The session key depends upon the main encryption key and is not itself an installed encryption key.

Furthermore, any communication of the "random number" cannot constitute "installing...encryption key" as claimed by the Applicant, nor can it constitute communicating an encryption key. By itself, the random number cannot be used to generate a "session key". Generation of the session key requires more than the random number. Also, the communication of the random number does not and cannot install the main cryptographic

key. Hence, the communication of a random number does not effectuate the communication of an encryption key for the purpose of "installing... an encryption key", as claimed by the Applicant.

Further, the communication of the "random number" and/or the "session key" is not for the purpose of installing anything. The communication of the random number is for the purpose of the authorization of Johnson's tag. Likewise, the use of the "session key" is for the purpose of encryption and/or decryption of information.

Additionally, Johnson's tag does not function as a "portable keying device" nor as an "electronic terminal", as claimed by the Applicant. Johnson's tag does not "transmit... an encryption key" as claimed by the Applicant. Instead, Johnson's tag generates the "session key" and employs the "session key" to encrypt information.

The Examiner states that Johnson "shows steps for changing the main cryptography key (col. 15, lines 13-61), which describes commands used to change the DES key". The cited text describes subject matter not claimed by the Applicant.

As described by Johnson, the main tag key is set by a "tag programmer" into the tag for "subsequent secure communications" (Column 15, Lines 13-15). Johnson does not describe a "communications unit...operative to transmit...the...encryption key...to the electronic terminal". Neither does Johnson describe "transmission of an RF signal" for the purpose of installing an encryption key, as recited by the Applicant's claims 60-61.

The electronic terminal claimed by the Applicant receives the communicated encryption key and installs the encryption key. As described by Johnson, the main tag key is not installed into the tag in the same manner as the Applicant's encryption key is installed into the Applicant's electronic terminal. Hence, Johnson's tag does not function like the "electronic terminal" claimed by the Applicant.

The Johnson reference simply does not address a "portable keying device" that is "operative to transmit the at least one...encryption key", as claimed by the Applicant. Consequently, neither Johnson's tag, POS device or host network can constitute a "portable keying device" including a "communications unit", as claimed by the Applicant. Neither Johnson's tag, POS device or host network can constitute an "electronic terminal", as claimed by the Applicant. The Johnson reference does not describe, nor does it analogously

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describe, the use of a "portable keying device" that transmits an encryption key for any purpose. The Johnson reference does not describe, nor does it analogously describe, "installing a data communications encryption key" using "the transmission of an RF signal" as recited in the Applicant's claims 60 and 61.

Johnson's teachings describe using a generated (session) encryption key and depend upon another "main cryptographic key" in both the tag and host computer. Without such a pre-existing "main cryptographic key", Johnson's system could not operate as described.

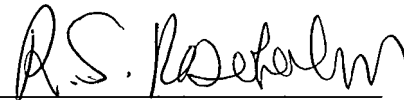
To summarize, the Examiner has applied the Johnson reference to all of the Applicants prior pending independent claims 1, 28, 42 and 60. Independent claims 28, 42, 60 and 61 also recite "a portable keying device" including a "communications unit" which the Johnson reference fails to teach or suggest. As a result, the Johnson reference fails to teach or suggest at least one limitation of each of the prior pending independent claims and of the new claim 61. Consequently, claims 1, 28, 42, 60 and 61 distinguish over the cited art.

As a matter of law, because independent claims distinguish over the cited art, claims 2-16, 29-38 and 43-48 which depend from the independent claims, also distinguish over the cited art. Accordingly, the Applicant respectfully requests that the Examiner allow claims 1-16, 28-38, 42-48 and 60-61.

The Director is hereby authorized to charge any fees associated with this communication or credit any overpayment to Deposit Account No. 50-0289.

Respectfully submitted,

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